

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	1413	kurokawa-m\$.in.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/01/11 11:23
L2	536074	animal\$ or rat or rats or labrat\$ or mammal\$	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/01/11 11:24
L3	2458762	"119"/\$ or "434"/\$ or "382"/\$ or g06f\$ or g01n\$ or g01k\$ or g09b\$ or a01k\$ or g01v\$	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/01/11 11:25
L4	461689	ir or infrared\$ or infra adj red	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/01/11 11:25
L5	225	1 and (2 3 4)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/01/11 11:26
L6	5	(US-20040142313-\$ or US-20020177110-\$).did. or (JP-2002335795-\$).did. or (US-20040142313-\$ or US-20020177110-\$).did.	US-PGPUB; JPO; DERWENT	OR	ON	2005/01/11 11:39

US 20040142313 A1 US-PGPUB  
US 20020177110 A1 US-PGPUB  
JP 2002335795 A JPO  
US 20040142313 A DERWENT  
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THIS APPLICATION

COULD BE OF INTEREST, SEE  
ATTACHED

BENSALEX



**(12) Patent Application Publication**  
**Kurokawa**

(43) **Pub. Date:** **Nov. 28, 2002**

(57) **ABSTRACT**

**A system for measuring memory and learning capabilities of a small animal, according to the present invention, includes:**

a feed holder storing therein feed to be given to the small animal;

an observation field having a plurality of through holes opened into the feed holder, and holding the small animal therein;

an openable cover for opening and closing the respective through holes, the cover having breathability;

a dark chamber joined to the observation field;

an observation unit for measuring a position of the small animal in the observation field successively by using infrared rays; and

a computer for controlling timing of opening and closing each openable cover, and calculating the number of accessing times during each unit period, of the small animal to the through holes on the basis of an output from the observation unit.

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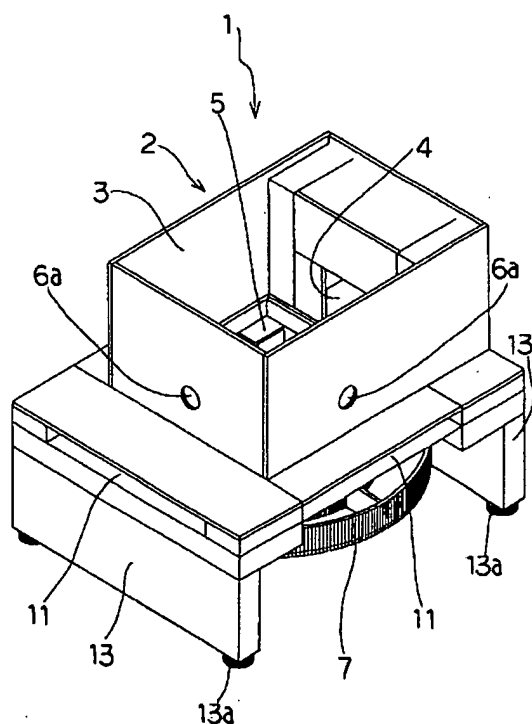
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(54)【発明の名称】 小動物の自然な摂食及び又は飲水欲求を利用した記憶学習能力の測定方法及びその測定装置

(57)【要約】

【課題】 夜行性動物の活動期である暗期にも記録測定できること、実験者による被験動物への接触を実験中、実験前後を通じて極力減らすこと、被験動物に対する侵害ストレスを減らすこと、及びその条件で記憶学習能力を測定評価することにある。

【解決手段】 実験小動物の居室箱2内に設けられた観測室3とホームポジション4、観測室3内の周縁に設けられた複数の給餌部5と給水部6、回転給餌箱7、観測室内の小動物を測定記録する測定記録機器8、各給餌部5及び各給水部6の給餌給水時期を制御し且つ測定記録機器8による小動物の所在部位の経時的变化を算出して解析するコンピュータ12などからなる。



PAT-NO: JP02002335795A

DOCUMENT-IDENTIFIER: JP 2002335795 A

TITLE: METHOD AND APPARATUS FOR MEASURING MEMORIZING  
AND LEARNING ABILITY OF SMALL ANIMAL USING NATURAL  
DESIRE OF TAKING FOOD AND WATER

PUBN-DATE: November 26, 2002

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APPL-NO: JP2001154668

APPL-DATE: May 23, 2001

INT-CL (IPC): A01K005/02, A01K007/02

ABSTRACT:

PROBLEM TO BE SOLVED: To enable recording and measuring even during dark time which is an active time for a nocturnal animal, reduce the contact of an experimenter to a test animal during, and before and after experiment as far as possible, reduce nociceptive stress to the test animal, and measure and evaluate memorizing and leaning ability under these conditions.

SOLUTION: This measuring apparatus comprises an observation section 3 and a home position 4 placed in a living box 2 of an experimental small animal, a plurality of feeding parts 5 and water-supplying parts 6 placed at the

surrounding places inside the observation section 3, a rotary feeding box 7, a measuring and recording device 8 for measuring and recording the existence of the small animal in the observation section, a computer 12 for controlling timings of feeding and water-supplying of each feeding part 5 and water-supplying part 6, and calculating and analyzing changes of the existing positions of the small animal with the lapse of time determined by the measuring and recording device 8, etc.

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\*Claim 1

\*the use of infrared detector to measure a position of an animal, a computer that controls opening and closing of a plurality of covers between an observation field and a feed holder, calculating the number of times the animal accesses holes ont he observation field

\*best prior art found: US 2003/0100998

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